



		Time Local/	Path Length	Path Width	Number of Persons		Estimated Damage		May 2004	
Location	Date	Standard	(Miles)	(Yards)	Killed	Injured	Property Crops	Character of Storm		
IOWA, Northeast										
Fayette County Fairbank	08	1618CST			0	0		Hail(0.75)		
Allamakee County 2 S New Albin	08	1808CST			0	0	0.75K	Hail(1.50)		
Allamakee County New Albin	08	1809CST			0	0		Hail(0.88)		
Floyd County Marble Rock	08	1833CST			0	0		Hail(0.75)		
Allamakee County 2 NW Lansing	08	1835CST			0	0	0.50K	Hail(1.00)		
Floyd County Marble Rock	08	1835CST			0	0	0.80K	Hail(1.00)		
Floyd County Charles City	08	1845CST			0	0	0.80K	Hail(1.00)		
Floyd County Charles City	08	1845CST			0	0	250K	Hail(3.00)		
Floyd County Charles City	08	1846CST			0	0	12.5K	Hail(1.75)		
Floyd County Charles City	08	1854CST			0	0	150K	Hail(2.75)		
Floyd County Charles City	08	1855CST			0	0	100K	Hail(2.50)		
Chickasaw County 2 W Ionia	08	1905CST			0	0	1.3K	Hail(1.75)		
Chickasaw County Ionia	08	1909CST			0	0	0.75K	Hail(1.00)		
Chickasaw County North Washington	08	1910CST			0	0	1.3K	Hail(1.75)		
Chickasaw County New Hampton	08	1920CST			0	0	0.70K	Hail(1.00)		
Chickasaw County New Hampton	08	1930CST			0	0	0.50K	Hail(1.00)		
Chickasaw County New Hampton	08	1930CST			0	0	5K	Hail(1.75)		
Winneshiek County Ridgeway	08 Nume	1938CST	arge hail were	received by	0 law enforce	0 ement offi	cials, amateur radio o	Hail(0.75) operators, spotters and	the public. Hai	

Numerous reports of large hail were received by law enforcement officials, amateur radio operators, spotters and the public. Hail sizes ranged from pennies to as large as baseballs. In fact, hail as large as 3 inches in diameter caused extensive damage in Charles City (Floyd County), knocking out windows and damaging roofs of residences and businesses. Over 300 vehicles at car dealerships on the south side of Charles City sustained considerable damage due to the large hail, with damage estimates totaling around a half million dollars.

Allamakee County Northeast Portion

08 1950CST 0 0 50K 2230CST Flash Flood

Rainfall amounts of 5 to 8 inches in less than three hours caused flash flooding. Hardest hit was the Lansing area where rock slides and mudslides closed Highways 26 and 9, including the Great River Road. Allamakee County was declared a disaster area due to damage resulting from the flash flooding.





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed		Estim Dan Property	ated nage Crops	May 200 Character of Storm	04
IOWA, Northeast										
Clayton County 2 NE Millville	19 Wind	0757CST gusts of around 6	0 mph were re	eported by lav	0 w enforceme	0 ent officia	ls.		Thunderstorm Wind (EG52)	
Winneshiek County Conover	21	0401CST			0	0			Hail(0.75)	
Fayette County Fayette	21	0510CST			0	0			Hail(0.75)	
Clayton County Volga	21 Penny	0530CST size hail was rep	orted by the p	ublic, spotter	0 s and law er	0 nforcemen	nt officials.		Hail(0.75)	
Allamakee County 4 NW Lansing	21	1155CST			0	0			Hail(0.88)	
Winneshiek County 1 S Castalia	21	1315CST			0	0	0.75K		Hail(1.00)	
Winneshiek County 1 SE Castalia	21	1317CST			0	0			Hail(0.88)	
Fayette County 2 NE West Union		1325CST he size of pennies ger estimated wind						teur radio	Thunderstorm Wind (EG57) operators. In addition, the emerge	ency
Floyd County Marble Rock	21	1742CST			0	0			Hail(0.75)	
Floyd County 2 W Powersville	21	1756CST			0	0			Hail(1.25)	
Chickasaw County Nashua	21	1811CST			0	0			Hail(0.88)	
Floyd County Rudd	22 The p	0058CST ublic, law enforce	ement officials	and emerger	0 ncy manage	0 rs reported	l hail rangir	ng in size f	Hail(0.75) rom pennies to half dollars.	
Floyd County Countywide	21 22	1840CST 0040CST			0	0	75K	85K	Flash Flood	
Chickasaw County Countywide	21 22	1933CST 0040CST			0	0	150K	100K	Flash Flood	
Fayette County Countywide	21 22	2001CST 0040CST			0	0	75K	75K	Flash Flood	
Allamakee County Countywide	21 22	2041CST 0040CST			0	0	70K	50K	Flash Flood	
Winneshiek County Countywide	21 22	2041CST 0040CST			0	0	65K	80K	Flash Flood	
Howard County Countywide	21 22	2048CST 0040CST			0	0	50K	85K	Flash Flood	
Clayton County Countywide	21	2130CST			0	0	65K	80K	Flash Flood	





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numl Per Killed	per of sons Injured	Estir Da Property	nated mage Crops	Character of Storm	May 2004
IOWA, Northeast										
20 ++124110111101151										
	22	0040CST								
Mitchell County										
Countywide	21 22	2200CST 0040CST			0	0	45K	50K	Flash Flood	
	officia (Chicl	als across northea kasaw County).	st Iowa. In a Mudslides b	nddition, two llocked High	bridges were way 76 near	re washed r Effigy	out and 40 Mounds an	homes read the Great	outs were reported by ceived flood damage at River Road near Iowa were declared d	in Fredericksburg Waukon Junction
Fayette County Oelwein	22	0119CST			0	0			Hail(0.75)	
Clayton County										
Osborne	22	0134CST	. 1 . 1 . 1	1.12	0	0		1	Hail(0.88)	
7. 5040 000 000		enforcement offic		ublic reporte	a naii the siz	e or penni	ies and nick	eis.		
IAZ010-029>030		eshiek - Fayette - 0200CST	- Clayton		0	0	1.6M	1.8M	Flood	
	22 26	0300CST							At Garber, a new all	
	evacu differe	ations on the sou ent location. The	th side of to town of Elkp	wn. Numer ort (Clayton	ous homes County) was	were so b s also hit l	adly damag nard by floo	ged, residen ding, with	eatened to overtop the nts had to either reb several bridges and he sestimated at nearly 2	uild or move to a nighways damaged
IAZ010>011	Winne	eshiek - Allamak	ree							
112010/011	22 24	0600CST			0	0		30K	Flood	
		0200CST all totals of 8 to 10) inches cause	ed flooding o	f mainly agr	icultural l	and along t	he Unner Id	owa River	
	Kaiiii	an totals of 6 to 10	menes cause	a nooding o	i maimy agi	icuiturar i	and along ti	не Оррег К	owa Kiver.	
IAZ008-018	Mitch	ell - Floyd								
222000 010	22 23	1200CST			0	0	75K	110K	Flood	
	Rainfa forced		of some reside	ents and closi					feet on May 23 in C s near the river were	•
Fayette County	22	0049667			0	0	10517	12517	Flash Flass	
Countywide	23	0048CST 0415CST			0	0	125K	125K	Flash Flood	
Clayton County										
Countywide	23	0058CST 0415CST			0	0	125K	100K	Flash Flood	
Floyd County										
Countywide	23	0143CST 0415CST			0	0	90K	100K	Flash Flood	
~		0415CST								
Chickasaw County South Portion	23	0145CST 0415CST			0	0	100K	125K	Flash Flood	

A second consecutive night of flash flooding affected much of northeast Iowa, when rainfall amounts of 2 to 4 inches occurred in three hours. Law enforcement officials reported water 3 feet deep covering roads in Arlington (Fayette County) and McGregor





Time Path Path Number of Estimated Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

IOWA, Northeast

(Clayton County). In addition, mudslides were reported between McGregor and Marquette (Clayton County).

Clayton County

South Portion 30 1605CST 0 0 1K 1.5K Flash Flood 1800CST

Localized flash flooding was caused by 1 to 2 inches of rain in less than two hours.

MINNESOTA, Southeast

Dodge County 3 S Hayfield	07	2320CST	0	0		Hail(0.88)
Mower County 2 N Waltham	07	2320CST	0	0		Hail(0.88)
Fillmore County 4 W Washington	07	2359CST	0	0		Hail(0.88)
Dodge County 2 W Hayfield	08	0015CST	0	0	0.50K	Hail(1.00)
Fillmore County Chatfield	08	0020CST	0	0		Hail(0.88)
Olmsted County 10 E Pleasant Grove	08	0020CST	0	0		Hail(0.88)
Fillmore County Chatfield	08	0045CST	0	0		Hail(0.88)
Olmsted County 10 E Pleasant Grove	08	0045CST	0	0		Hail(0.88)
Winona County Troy	08	0105CST	0	0		Hail(0.88)
Fillmore County Rushford	08	0128CST	0	0		Hail(0.88)
Mower County Austin	08	0232CST ne size of nickels and quarters was report	0	0	orcement officials and	Hail(0.88)
Wabasha County Wabasha	09	1906CST	0	0		Hail(0.75)
Dodge County 6 N Mantorville	09	2116CST	0	0		Hail(0.75)
Dodge County 2 W West Concord	09	2118CST	0	0		Hail(0.75)
Dodge County Concord	09	2124CST	0	0	0.80K	Hail(1.00)
Dodge County 1 NW Dodge Center	09	2126CST	0	0		Hail(0.75)
Olmsted County 1 NW Byron	09	2136CST	0	0		Hail(0.75)
Olmsted County 1 S Douglas	09	2144CST	0	0		Hail(0.88)
Olmsted County Potsdam	09	2144CST	0	0	1K	Hail(1.00)





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed		Estimated Damage Property Crops	Character of Storm	May 2004
MINNESOTA, Souther	<u>ast</u>								
Olmsted County Potsdam	09	2147CST			0	0	0.75K	Hail(1.00)	
Wabasha County Plainview	09	2152CST			0	0		Hail(0.75)	
Wabasha County Elgin	09	2155CST			0	0		Hail(0.75)	
Mower County 5 SE Grand Meadow	09 Spotter	2232CST rs and law enforcer	ment official	s reported ha	0 il the size o	0 f pennies,	nickels and quarters.	Hail(0.75)	
Wabasha County									
North Portion	09	2115CST 2355CST			0	0	3.5K	Flash Flood	
	2 to 4 i	inches of rain fell i	n two hours,	which cause	d flash floo	ding.			
Wabasha County									
2 NE Jarretts	19 Law er	1957CST	s reported se	everal trees w	0 vere blown o	0 down by w	0.30K vinds estimated aroun	Thunderstorm Wind	d (EG52)
	Euw ei	norcement official	s reported se	voiai trees v	cie biowii c	iown by w	inds estimated aroun	a oo mpii.	
Fillmore County 4 E Spring Vly	21	1124CST			0	0		Hail(0.75)	
WISCONSIN, Southwe	<u>est</u>								
Grant County Hazel Green	07	1650CST			0	0	0.50K	Hail(1.00)	
Grant County Hazel Green	07	1651CST			0	0	0.50K	Hail(1.25)	
	Hail th	e size of quarters a	and half dolla	ars was repor	ted by spott	ters and la	w enforcement officia	ıls	
Trempealeau County Elk Creek	07	2342CST			0	0	0.75K	Hail(1.75)	
Monroe County									
Sparta	07 Amate	2344CST	and law enfo	orcement offi	0 cials reporte	0 ed hail ran	ging in size from pen	Hail(0.75)	
	11111110	ar radio operators			orans reporte	,	iging in once from pen	mes to gon ouns	
Crawford County 2 S Ferryville	08	1906CST			0	0		Hail(0.75)	
Crawford County Ferryville	08	1919CST			0	0		Hail(0.75)	
Crawford County								()	
2 E Ferryville	08	1920CST			0	0		Hail(0.88)	
Crawford County 2 E Ferryville	08	1924CST			0	0		Hail(0.75)	
Crawford County Seneca	08 Hail th	1945CST se size of pennies a	nd quarters v	was reported	0 by the publ	0 ic and ama	0.50K ateur radio operators.	Hail(1.00)	
Crawford County		r	1		J		-F		
Northwest Portion	08	2000CST 2230CST			0	0	15K	Flash Flood	



Vernon County

Liberty Pole

1211CST

21

National Weather Service Storm Data and Unusual Weather Phenomena



Table 1		Data a	ila Oi	iusua		CILIE	or riteri	omena	2,62
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed		Estimated Damage Property Crops	Character of Storm	May 2004
WISCONSIN, Southw	<u>vest</u>								
Vernon County Southwest Portion	08 F64V	2015CST 2230CST E			1	0	15K	Flash Flood	
	enford (Vern	cement officials a on County), a wor	long Highwa man died wh	y 35 near De en her car was	Soto, Lyr swept aw	nxville and ay as she	d Ferryville (Crawfo	s and rock slides we ord County). Near to a swollen creek that co 0 feet away.	he town of Purd
Faylor County 2 W Gilman	09	1917CST			0	0	2K	Thunderstorm \	Wind (EG52)
Buffalo County Nelson	09	1923CST			0	0		Hail(0.75)	
Clark County 8 S Willard	09	1948CST			0	0		Hail(0.75)	
Trempealeau County Independence	09	1948CST			0	0		Hail(0.75)	
Clark County 3 E Loyal	09	1955CST			0	0		Hail(0.75)	
Buffalo County Montana		2141CST he size of pennies					enforcement officia	Hail(0.75) ls and spotters. Win	ds estimated at 60
Buffalo County North Portion	09	2054CST 2350CST			0	0	5K	Flash Flood	
Trempealeau County North Portion	09	2220CST 2355CST			0	0	4K	Flash Flood	
			•		, which fe	ell in two	hours. Law enforce	ment officials in Arc	adia (Trempealea
Jackson County Merrillan	12	1510CST			0	0	0.40K	Thunderstorm '	Wind (EG54)
Clark County Colby	12	1522CST			0	0	0.30K	Thunderstorm '	Wind (EG52)
Clark County Curtiss	12 Law e	1528CST enforcement official	als and the pu	ablic estimated	0 wind gust	0 s of 60 to	0.30K 65 mph, which knoc	Thunderstorm Vectors and the control of the c	, ,
Grant County 2 S Potosi	17 The p	1808CST ublic estimated wi	nds gusting t	o around 60 mj	0 oh, which	0 flattened a	0.25K hay field	Thunderstorm \	Wind (EG52)
Vernon County De Soto	21	1146CST			0	0	0.75K	Hail(1.00)	
Vernon County Retreat	21	1158CST			0	0	0.80K	Hail(1.50)	

Hail(0.75)





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed			nated mage Crops	Character of Storm	May 2004
WISCONSIN, Southw	<u>est</u>									
Vernon County 7 SE Viroqua	21	1213CST			0	0	1.3K		Hail(1.75)	
Vernon County 1 W Hillsboro	21	1316CST			0	0			Hail(0.75)	
Juneau County Wonewoc	21	1338CST			0	0			Hail(0.75)	
Crawford County 5 N Prairie Du Chien	21 Hail ra	1356CST anging in size from	m pennies to a	as large as go	0 lf balls were	0 e reported	by the pub	lic, spotters	Hail(0.75) s and emergency mana	agers.
WIZ053>054	Vernor 21 28	n - Crawford 1400CST			0	0		27K	Flood	
		0700CST Il amounts totalin	ng 8 to 10 inch	nes caused flo	ooding of m	ainly agri	cultural lan	d along the	Kickapoo River	
Crawford County Countywide	21 22	2155CST 0130CST			0	0	200K	200K	Flash Flood	
Richland County	22	0130031								
Countywide	21 22	2231CST 0130CST			0	0	75K	50K	Flash Flood	
Vernon County Countywide	21 22	2232CST 0130CST			0	0	250K	250K	Flash Flood	
Grant County North Portion	21 22	2238CST 0230CST			0	0	100K	100K	Flash Flood	
	2 to 4	inches of rain in either washed ou	t or covered	with water a	s much as	3 to 4 fe	et deep. S	Some roads	gency managers report were closed by much synxville (Crawford C	Islides, including
Grant County										
Countywide	22 23	2308CST 0415CST			0	0	150K	150K	Flash Flood	
Vernon County Countywide	23	0000CST 0415CST			0	0	125K	90K	Flash Flood	
Crawford County Countywide	23	0014CST 0415CST			0	0	200K	200K	Flash Flood	
Richland County		0413C31								
Countywide	23	0014CST 0415CST			0	0	30K	35K	Flash Flood	
	enforce several	ement officials a	and emergency randed in veh	y managers i	reported mu	dslides b	locking hig	hways. In	l amounts totaling 2 t Prairie du Chien (Ca amage from flash flo	rawford County),
Grant County										
3 SW Kieler		0218CST gusts estimated a 150 yards	nt 60 to 65 mp	oh blew dow	0 n a pole bar	n, ripped	8K a large dec	k off of a l	Thunderstorm We house and moved a si	, ,

100 to 150 yards.